PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-053005

(43)Date of publication of application : 26.02.1999

(51)Int.CI.	G05B 13/04 G05B 13/02

(21)Application number : 09-208719

(22)Date of filing : 04.08.1997
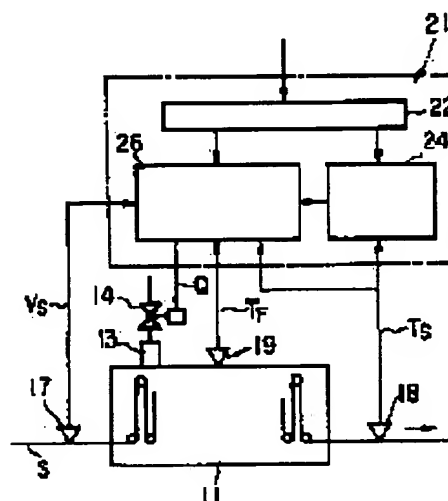
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(54) LEARNING METHOD FOR MODEL PARAMETER OF CONTROL SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent a failure of control and a decrease in learning effect by judging whether or not parameters after learning are proper from an output transition curve obtained by step response by the method which learn parameters of a prediction model according to the observed values of outputs observed at specific sampling intervals.

SOLUTION: The thickness and width of a steel plate, a feed speed, a target temperature, a prediction model expression, a parameter initial set value, an output variation permissible range, a plant state permissible range, a sampling period, etc., are set previously in a specific setting means 22 and a parameter learning means 24 starts learning parameters according to them. A steel plate temperature Ts is detected in specific sampling cycles and sent to a learning means 24 and a steel plate temperature control means 276. The learning means 24 corrects the parameters sequentially according to the steel plate temperature Ts, finds a fuel gas flow rate as a target temperature according to the corrected specifications, and outputs a control signal Q to a flow rate control valve 14 according to the arithmetic result. Even after settlement, the parameters are learnt and corrected.

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision
of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]